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STAR
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Scientific and Technical Aerospace Reports

Annual Index 1976

Part One
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The abstract sections of the semimonthly *STAR* journals can be bound separately. Individual abstracts can be located readily by means of the page numbers given at each index entry, e.g., p 2815. To assist the user in binding *STAR* Volume 14, four (4) title pages are included in the back of Part I of the Annual Index.

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Introduction

WHAT STAR ANNUAL INDEXES ARE

This Annual Index is an edited consolidation of the indexes to the individual issues of *Scientific and Technical Aerospace Reports (STAR)* for the calendar year 1975 (Volume 14 Numbers 1 through 24). For the convenience of the user, it is divided into two parts, each bound separately. Part I contains the Subject Index. Part II contains the Personal Author Index, Corporate Source Index, Contract Number Index, and Report/Accession Number Index. The Annual Index supersedes the semimonthly and semiannual indexes previously issued during 1976.

Each entry in this index includes a group of identifying numbers in the following form: 22 p 2815 N76-31137. The first two digits (22) identify the issue in which the document was announced. The "p" and the four digits that follow (2815) refer to the page number, in the designated issue, on which the abstract of the document appears. The next group of numbers (N76-31137) is the NASA Accession Number, a unique identification number assigned by NASA to each document that was acquired, indexed, and announced in *STAR* during the year.

In addition to these identifying numbers each entry in the Subject Index contains a title or title and title extension. Each entry in the Personal Author and Corporate Source Indexes contains the title of the document.

At the beginning of each index in this cumulation, a typical listing is illustrated with each of its elements identified to assist the reader in using the different types of index entries.

HOW TO USE THE SUBJECT INDEX

Subject terms in this cumulative index are arranged alphabetically, and are supplemented with cross-references which are intended to serve as directions that will enable the user to modify, enlarge, or narrow his search in accordance with his specific interests. The subject headings have been selected from the latest revision of the *NASA Thesaurus*. Two types of cross-references are used:

1. Use (U) references direct the user to alternate headings under which material on the subject may be found. For example,

   COLUMBIUM
   U NIOBIUM
   ANNULAR JETS
   U ANNULAR FLOW
   U JET FLOW

2. Narrower Term (NT) references refer the user to more specific headings in the same subject area, under which additional material on the subject may be found. For example:

   EMISSION
   NT ELECTRON EMISSION
   NT NEUTRON EMISSION
   NT THERMAL EMISSION

Finally, a searcher should use the titles and title extensions in the index to narrow further his quest for particular items. This is because subject terms can readily refer to more than one class of document. For example:

CATHODES

Cesium plasma cathodes as sources of high intensity electron beams.

Cathode material testing in electrochemical half cells.

illustrates a case where two references on different topics are listed under the same subject term.

HOW TO USE THE CORPORATE SOURCE INDEX

The corporate source index entries are abridged versions of the corporate sources used in the abstract-section citations in the individual issue supplements. The corporate source supplementary (organizational component) does not appear in the index. For example:

PRINCETON UNIV., N.J. DEPT. OF CHEMICAL ENGINEERING.
(Corporate source at citation)

PRINCETON UNIV., N.J.
(Corporate source index entry)

HOW TO USE THE PERSONAL AUTHOR INDEX

All personal authors identified in the abstract-section citations in the individual *STAR* issues appear in this index. Differences in transliteration schemes may require multiple searching of the index for variants of an author's name. For example:

EMELIANOV, M. D.
YEMELYANOV, M. D.

HOW TO USE THE CONTRACT NUMBER INDEX

All contract numbers that are identified in the abstract-section citations in the individual *STAR* issues appear in this index. Changes by agencies in the style in which contract numbers are presented may require multiple searching for variants. For example:

AF 33(615)-67-C-1758
F33615-67-C-1758

HOW TO USE THE REPORT/ACCESSION NUMBER INDEX

All report numbers that have been assigned by the corporate source, monitoring activity, or cataloging activity appear in this index. Variations in initial input may result in different report number series. For example :

TP-924
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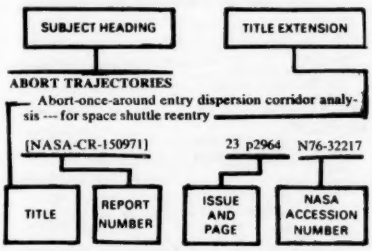
contains nearly a million documents, which are abstracted, indexed, and obtainable through retrieval and dissemination services. These services which include the abstract journal, *Scientific and Technical Aerospace Reports (STAR)*, are described fully in a bulletin, *The NASA Scientific and Technical Information System . . . and How to Use It*, available at no charge from the NASA Scientific and Technical Information Facility, P.O. Box 8757, B.W.I. Airport, Maryland 21240.

AVAILABILITY OF DOCUMENTS

Information concerning the availability of documents announced in the *STAR* issues covered in this index is found in the Introduction to the most currently issued semimonthly issue.

SUBJECT INDEX

TYPICAL SUBJECT INDEX LISTING



The subject heading is the key to the subject content of the document. Titles, issues page numbers, report numbers, and accession numbers of pertinent documents are provided under each subject heading. When the title is insufficiently descriptive of the document content, a title extension has been added, separated from the title by three hyphens. The report number helps to indicate the type of document cited (e.g., NASA report, translation, NASA contractor report). The issue and page identify the *STAR* issue in which the document was announced and the page number on which the citation appears. The accession number denotes the number by which the citation is identified on that page. The titles are arranged under each subject heading in ascending accession number order. The subject headings have been selected from the latest revision of the *NASA Thesaurus* (NASA SP-7050).

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NT ANTHRACENE
NT BUTADIENE
NT CARBAMATES [TRADENAME]
NT CARBON TETRACHLORIDE
NT CASTOR OIL
NT CELLULOSE
NT CHITIN
NT CHLOROETHYLENE
NT CHLOROFORM
NT CHOLINE
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NT ETHANE
NT ETHYL ALCOHOL
NT ETHYLENE
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NT CESIUM VAPOR
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U DAMPING

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NT NEAR INFRARED RADIATION
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U LAMINAR BOUNDARY LAYER

LAMINAR FLAMES
U FLAMES
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LOCATION
U POSITION [LOCATION]

LOCATION OF AIR TRAFFIC SATELLITES
U LOCATES SYSTEM

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U C-5 AIRCRAFT

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U FORGING

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NT MANGANESE OXIDES
NT MOLYBDENUM OXIDES
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NT SAPPHIRE
NT SILVER OXIDES
NT THORIUM OXIDES
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NT METAL POWDER
NT POWDERED ALUMINUM
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U FLUX [RATE]

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NT AIRSPEED
NT ANGULAR ACCELERATION
NT ANGULAR VELOCITY
NT ARRHYTHMIA
NT BURNING RATE
NT COLLISION RATES
NT CRITICAL VELOCITY
NT CURRENT DENSITY
NT DECAY RATES
NT DECELERATION
NT DRIFT RATE
NT ELECTRON FLUX DENSITY
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NT FLUX [RATE]
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